

February 13, 2003

TO: Community Advisory Group (CAG)

RE. Soil Testing and Evaluation of Herculaneum Lawns Involved in Remediation

FROM: Dean Wilson, Agriculture Specialist

At the November CAG meeting, several residents voiced concerns about the lawns involved in remediation. The Jefferson County Extension Center offered to evaluate these problem lawns with these objectives:

- 1) Evaluate the grass stands and suggest horticultural practices that would improve the lawns
- 2) Soil test to determine fertility and to obtain fertilizer recommendations that are tailored to the site.
- 3) Identify practices that would help made lawn remediation more successful in the future

Four lawns were tested and evaluated. The condition of the grass ranged from excellent, to a complete failure in one lawn. The topsoil brought in to replace the lead contaminated soil tested quite well for fertility. Soil pH was near 7.0, which is certainly in the adequate range to grow lawn grasses. Soil compaction was an issue in three out of the four lawns. Reports were forwarded to each homeowner, with a copy sent to USEPA, with suggestions for improving the lawn by overseeding, fertilization, and in the case of those with compaction, providing aeration.

The following conclusions and suggestions were forwarded to Bruce Morrison of USEPA.

- 1) It is important to understand that it often takes a couple of seasons to establish lawns in Jefferson County. Heat, drought, too much rain, extremes in cold, and competition from weeds can make seedings unsuccessful. This is especially true with spring seedings. Fertilization, overseeding, and irrigation are all tools that can be used to help overcome environmental challenges. However, patience may be just as important.
- 2) While the soil brought in for Herculaneum lawns is more than adequate from a soil nutrient standpoint, it does contain almost 40% clay. While high clay soils can be productive, they tend to compact easily, get drier in summer, hold more moisture in wet periods, and are more difficult for roots to penetrate. Therefore, it is suggested that the source of the soil be changed and that the soil contain less than 27% clay.

The Extension Center will continue to help homeowner with lawn issues at the CAG's request. Soil tests are available to residents of Herculaneum, and for that matter, all residents of Jefferson County, for \$8.50 per test. Visits to problem lawns can be scheduled as time permits, by calling the Jefferson County Extension Center at 636-797-5391.

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Superfund

### **Focus Group Status**

- Lead dust experts provided preliminary recommendations that included reducing the HUD standards and modifying sampling protocols
- Focus group formed additional questions for experts
- Next meeting scheduled for May 29<sup>th</sup> at 6 30 pm

### **Slag Pile**

- EPA and MDNR proposed interim measures that control surface run on and runoff and isolate the pile from 10-year flood events
- Proposal had two options for Interim flood protection,
  - 1) Berm around the pile
  - 2) Capping the base of the pile

### **Slag Pile cont.**

- Doe Run prefers berm option over the capping option and has offered additional berm options that provide slag pile flood protection for 500-year flood events

### **Materials Handling and Transportation**

- EPA requiring revised Plan due to lead levels measured on streets
- All concentrate delivery trucks will be rerouted through the facility and washed prior to exiting property
- Additional tailgate seals will be installed on concentrate trucks
- Green zone performance measure for lead dust required to be equivalent to non-haul routes

### **New Concentrate Off Loading Site**

- Concentrate delivery trucks will off load directly into rail cars behind strip mill building
- New procedures will reduce material handling
- New procedures will reduce stockpiles on the ground

### **Property Access from Owners**

- EPA encourages owner access for yard soil replacement and interior cleaning
- Soil replacement and interior cleaning are measures that will reduce the potential for exposure to lead dust.
- EPA will sample home interiors where homeowners are refusing interior cleaning